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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,264	02/01/2005	Yutaka Minami	257262US0PCT	3925

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C. IRVIN MCCLELLAND
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
LEE, RIP A	

ART UNIT	PAPER NUMBER
1713	

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/505,264	MINAMI ET AL.	
	Examiner	Art Unit	
	Rip A. Lee	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7 and 9-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 9-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action follows a response filed on July 31, 2006 and a supplemental response filed on August 15, 2006. Claims 1-5 and 9 were amended, and claim 8 was canceled. Claims 1-7 and 9-12 are pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-7 and 9-12 are rejected under 35 U.S.C. 102(e) as being anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over Minami *et al.* (U.S. 6,414,090).

Minami *et al.* teaches a process for polymerization of one or more olefins having at least 4 carbon atoms in the presence of catalyst comprising transition metal (A) and at least one co-catalyst selected from an organoaluminum oxy compound and ionic compounds (claims 1 and 4). Specific examples of compound (A) are the series of doubly bridged complexes listed in column 4, line 65 to column 5, line 9, in which the complex is bridged by two dimethylsilylene groups. The organoaluminum oxy compound is clearly defined as an aluminoxane (column 8), and use of ionic borates is thoroughly disclosed in column 10. Minami *et al.* discloses olefins having at least 4 carbon atoms as 1-butene, 1-pentene, 1-hexene, 4-methyl-1-pentene, 1-octene, *etc.* in claim 4. Thus, it is maintained that Minami *et al.* teaches a process for making 1-butene based polymer as claimed because the reference teaches a small genus which places the claimed species adequately disclosed to the public, as per *In re Schaumann*, 572 F.2d 312, 197 USPQ 5 (CCPA 1978). Since the process of the prior art is essentially the same as that claimed, it follows that the products prepared by essentially the same process will exhibit essentially the same properties. Therefore, it is maintained that polybutene prepared by the process of Minami *et al.* inherently possesses the properties recited in claims 1-4. Since the PTO can not conduct experiments, the burden of proof is shifted to the Applicants to establish an unobviousness difference. *In re Fitzgerald*, 619 F.2d. 67, 205 USPQ 594 (CCPA 1980). See MPEP § 2112-2112.02.

5. Claims 1-7 and 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over Evertz *et al.* (U.S. 5,496,902).

Evertz *et al.* discloses a process for polymerization of C_2-C_{10} alkenes in the presence of a catalyst composition comprising transition metal complex (I) and aluminoxane (claim 1). As seen in the formula of (I), the complex contains a group 4 metallocene bridged by two dialkylsilylene groups (see also examples). The monomer 1-butene is exemplified a species of C_2-C_{10} alkenes preferably used in the invention (col. 4, line 12). In summary, the process disclosed in Evertz *et al.* is essentially the same as that recited in the instant claims. Since the

process of the prior art is essentially the same as that claimed, it follows that the products prepared by essentially the same process will exhibit essentially the same properties. Therefore, it is maintained that polybutene prepared by the process of Evertz *et al.* inherently possesses the properties recited in claims 1-4. Since the PTO can not conduct experiments, the burden of proof is shifted to the Applicants to establish an unobviousness difference. *In re Fitzgerald*, 619 F.2d. 67, 205 USPQ 594 (CCPA 1980). See MPEP § 2112-2112.02.

6. Claims 5-7, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashiwamura *et al.* (U.S. 6,339,135) and Yabunouchi *et al.* (U.S. 5,854,165) for the same reasons set forth in the previous office action.

Terminal Disclaimer

7. The terminal disclaimer filed on July 31, 2006, disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. 6,930,160 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Response to Arguments

8. The obviousness-type double patenting rejections over Minami *et al.* (6,930,160) has been withdrawn in view of Applicant's filing of a terminal disclaimer.

9. The rejection of claims under 35 U.S.C. 103(a) as being unpatentable over Kashiwamura *et al.* (U.S. 6,339,135) and Yabunouchi *et al.* (U.S. 5,854,165) remain in force. Claim 5 still recites use of a C_1 to C_{20} hydrocarbon group in the second to last line of the claim (page 4 of response). The rejection will be overcome upon appropriate amendment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

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October 25, 2006

DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700